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ABSTRACT

National assessments of student academic achievement in various subjects and grades are conducted each year in France. However, there is no formal evaluation of student performance in various cross-curriculum domains, such as study skills, self-image, interest in learning, cooperative attitudes, social competence, or civic knowledge and values. This paper presents findings of a longitudinal study that examined students' growth in these areas, as well as in the subjects of French and mathematics. A stratified sample of 100 schools was drawn in 6 school districts. In each school, a random sample of 80 students entering grade 6 completed 2 cognitive tests and a rotated form of the cross-curriculum instruments. Posttests were administered to the 8,000 students twice--after years and then after 4 years in secondary school. Questionnaires about the school environment and the learning processes were completed by students in grades 6, 7, and 9; 30 teachers; and the school directors. The paper presents findings from phase 1 of the study, which examined students' progress from the beginning of grade 6 through the end of grade 7. Findings indicate that students' academic progress in French and mathematics improved; however, most of their cross-curricular outputs declined. Girls showed improvement in French, civics, study skills, cooperation, and social skills. Boys' mathematics and self-concept scores increased. The following variables correlated highly with student outcomes: positive expectations, school climate, opportunity to learn, time management, discipline, and clear rules. Achievement gaps were reduced in school settings that included students of different socioeconomic (SES) and ethnic backgrounds. High-SES communities demonstrated the highest levels of academic effectiveness. Four tables are included. (LMI)

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EFFECTIVE AND LESS EFFECTIVE JUNIOR SCHOOLS IN FRANCE

A longitudinal study on the school environment variables influencing the student's academic achievement, study skills and socio-affective development.

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I. GENERAL FRAME

While national assessments of the students' academic achievement are done each year in France for different subjects and different grades, no comparable information is available about a number of cross-curriculum domains, such as students' *Study skills, Self image, Interest in learning, Cooperative attitudes, Social competence* or *Civic knowledge and values.*

Both the school authorities and the families seem to consider these goals as very important; and indeed, a top-priority is attached to them in many passages describing the general curriculum in France. However, there is no formal evaluation of the students' outcomes for these aspects.

This study, which was granted by the *Direction de l'Evaluation et de la Prospective* of the French Ministery of Education, is a first attempt in this area in France. It had three aims:

a. To develop appropriate instruments for large scale surveys on a set of cross-curriculum outcomes.

b. To assess the students' growth in these domains, and also in two cognitive subjects (mother language and maths), from the beginning of grade 6 (where french students enter the secondary school) to the end of grade 9 (end of junior secondary school).

c. To find whether the attended school has an effect on the pattern of students' outcomes, and whether the school characteristics which seem to be important determinants of academic outputs (school climate, leadership style, time management, teacher expectations, etc.) are also effective for cross-curriculum outputs.

A stratified sample of 100 schools was drawn in six school districts. In each school, a random sample of 80 students entering the grade 6 was administered the two cognitive tests and a rotated form of the cross-curriculum instruments. The 8000 students were post-tested twice (after two years and then after 4 years in secondary school).

Extensive information about the school environment and the learning processes was collected in grades 6, 7 and 9 from questionnaires completed by the students, by a sample of 30 teachers (10 in each grade) and by the school director.

Only the data about the first phase of the study (progress from the beginning of grade 6 to the end of grade 7) have been analysed until now, and will be presented in this article.

II. THE INSTRUMENTS

1. The two cognitive pretests (***Mother language*** and ***Maths***), administered to the students in october 1990, were those included in the National Assessment which takes place each year in France for all students entering the secondary school. The two post-tests administered in 1992 were adapted from another national study (*Evaluation en cycle d'observation*, DEP 1992). They contain approximatively one third of anchor items, common to both the 1990 and the 1992 tests. The students who repeated grade 6 received the same post-test as the others.

2. ***The cross-curriculum instruments*** were included in five different booklets. Each student was administered a rotated form containing two of them; the rotation system was designed to obtain a minimum of 20-30 students passing each scale in each school, and a minimum of 600-700 students passing each pair of scales in the whole population.

   a. **Booklets 1 and 2** (*How I work and How I do my homework*) contain a series of self-describing items and scales about the students' **study skills**, developed by the research team in Liège (Lafontaine, 1988, Detheux and Blondin, 1989).

   b. **Booklet 3** (*What I am like*) includes a French version of the Harper's (1982) **Self Perception Profile**, adapted by Pierrehumbert (1987), who added to this version of the SPP a **Locus of Control** scale.

   c. **Booklet 4** (*Me and the others*) contains a French version of three instruments: a **Cooperative/Individualistic/Competitive** attitude scale (Johnson and Norem-Hebeisen, 1979) ; the Children's **Assertive Behavior** scale (Michelson and Wood, 1982); a **School Motivation** subscale (extracted from the Quality of the School Life questionary by Williams and Batten, 1981).

   d. **Booklet 5**. (*Life in Society*) contains a number of items on **Civic attitudes and values.** Some of them were developed by the research team; some others were adapted from the IEA Civics Study instruments (Torney and al., 1975).

The administration plan was accurately devised to protect the confidentiality of the students' answers to the cross-curriculum (and student's questionnaire) booklets, in an effort to minimize the possible desirability bias.

From these different instruments, 16 pretest and post-test scores were obtained, to be used as criteria in the multivariate analyses (see Table 1).

A multilevel model was used to estimate the school parameters to be used as 'effectiveness' and 'equity' criteria at the school level.

3. Student, Teacher and School questionnaires.

The research team developed these instruments keeping in mind the following requirements:

- All dimension explored should have some theoretical or empirical ground in the school effectiveness literature (Purkey & Smith, 1983; Good & Brophy, 1986; Creemers & Scheerens, 1989; Scheerens,1983);
- All dimensions should be measured with an estimable (and at least reasonable) reliability;
- As often as possible, a common map should be used for the student, teacher and school questionnaires: the same dimensions should be measured if possible by similar items in the three instruments .

The questionnaire items were grouped to construct about 120 student, teacher and school composite variables, which were used in descriptive (univariate) analyses and in the school reports.

For the multivariate analyses, these variables were aggregated at the school level, and grouped again, to form some 25 *composite indexes*, which were used as predictors in the regressions (see table 2).

A more detailed description of the instruments and of the methods used to obtain the school environment variables may be found in the research report (Grisay, 1993[1]).

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1 This document (in French) can be obtained by writing to the French authorities : DEP6A, 58 bd du Lycée, 92100 Vanves, France.

III. RESULTS

1. General trends in the students' evolution.

The average results (Table 1) point to a sharp contrast between the academic and most of the cross-curricular outputs. While the students' two-years progress is significant in *mother language* and *mathematics*, as documented by the anchor items in the two cognitive tests, only a little improvement appears in *Civics* and no improvement at all in *Study Skills*. The students' attitudes towards school seem to deteriorate: a negative evolution is observed for the *Interest in School*, *Perseverance* and *Locus of Control* scores; the score on a *Verbal Agressivity* scale becomes significantly higher after two years.

The study points to some possible explanations of this pattern of results, especially for Study Skills and Attitudes.

a. Most schools do not offer their students a real opportunity to learn or improve study skills. Some of them do (for example, by implementing specific courses in study skills, or a tutoring system for homework); in those schools the evolution pattern is significantly better than in others for these criteria.

b. A clear decrease in *Parent's support for homework* (-0.375 standard deviation) is observed during the two first years in secondary school. A number of families (not only those with low levels of education) probably feel too difficult to keep on helping their children when the school subjects become 'harder'.

Therefore, many students are left with no more (and actually, often less) resources to cope with the school requirements at the very moment when a fast increase takes place in these requirements. The deterioration of all the scores describing the students' attitudes towards school (*Motivation, Locus of Control, Perseverance*) and the increase in *Agressivity* is probably related to the anxiety deriving from this situation, as evidenced by a less negative (or even positive) evolution of attitudes in schools where an effort is undertaken to teach study skills and where the students perceive their teachers as *'always willing to help' or 'encouraging us to do our best'*.

The *Civics* attitude scale shows that the only domain where the average student has clear opinions when beginning grade 6 is rejection of racism (80-90% of positive answers). The answers on items about *discrimination against women* improve from grade 6 to the end of

grade 7, as well as the understanding of *fundamentals rights*. But no improvement is observed in items about *justice*; and the students' attitude towards *fraud* becomes more tolerant.

When entering the secondary school, the students experience an important change in their physical and social environment, which seem to be rather distressing : their pretest scores are quite low for all the *Self Image* criteria. However, they are no more the 'youngest ones' two years later: some improvement in social status took place, which may explain a slight rise of the post-test scores in *School Perceived Competence* and *Social Image*. But there is not yet any improvement in *Body Image* post-test scores. About 50% of the students would like to be thinner, to have a different nose or different hair, or different body shape than their's...

Controlling for the pretest scores, a more positive pattern of evolution is observed for girls than for boys. Girl's two-years evolution is better in *French, Civics, Study Skills, Cooperation* and *Social Skills*. Boy's scores in *Maths* and *Self Concept* improve more than girl's.

For most cross-curriculum domains, a quite positive profile appears among students from ethnic minorities: compared with the evolution of native students with the same SES, the growth scores of immigrated students are better, especially in *Civics* and *Interest in School*.

Students from high SES background have better gain scores in both academic subjects, in *Social skills* and in *Civics*.

3. Between-school variance.

One important finding is that, in the French centralised school system, the between-school variance is only moderate in *mother language* and in *mathematics* (20% of the total variance of the post-tests is between-schools variance, and 16 % of it is explained by the pretest scores, leaving only 4 % of the total variance as a 'net' effect of the schools).

The between-schools variance is even less for all the *cross-curriculum* criteria (it varies from 9 % in *Civics* to 0.5 % in *Social Self-image*; and it is reduced to a mere 2% in Civics and a maximum of 3.2% in *Study Skills* when controlling for the pretest scores).

4. Intercorrelations between the school effectiveness coefficients.

The school effectiveness coefficients are only moderately intercorrelated. Only one school can be considered as effective for all dimensions, and only five schools are ineffective for all of them. However, a factor analysis shows some consistencies: schools which are effective in *French* are also likely to be effective in *Maths*. The effectiveness indices in *Study Skills, Work Organisation, Perseverance*, and *Interest in School* are intercorrelated; the same happens for *Civics, Cooperation, Social Skills* and *Locus of Control*. Finally, a modest correlation (.30) is found between the *equity* coefficients in Math and French.

5. School characteristics associated with the 'effectiveness' and 'equity' coefficients.

The four factor scores derived from this factor analysis (*Academic Effectiveness; Academic Equity; Effectiveness in Social and Civic domains; Effectiveness in Study Skills and Attitudes*) were used as criteria in a series of regression analyses at the school level. The composite school variables described in Tab. 2 were used as predictors. Table 4. presents an overview of the major results .

A number of interesting findings emerged from these analyses:

a. When examining the zero order correlations, one finds a group of school variables whose correlations with effectiveness are quite high, and which are some of the well-known effectiveness correlates described by prior studies in other countries (*positive expectations, school climate, opportunity to learn, time management; discipline; clear rules*).
Some exceptions are *Leadership Style, Frequent evaluation of students' progress* and *Staff consensus about Objectives*: these composite variables do not seem to have a clear relationship with effectiveness in the French context.

b. One noticeable finding is that a number of variables which are associated with academic progress have also a significant impact on some attitude scores. In schools with *a good climate, high teacher expectations* and *extensive opportunities to learn*, the students are more positive in their opinions about their teacher's skills; they report lower levels of indiscipline and *Agressivity*, and their *Interest in School* scores improve significantly.

c. Most of these variables are strongly intercorrelated. Their correlation with the school average SES is also very high. Therefore, when entered in the regression analyses, they explain little *unique*, but quite large *joint* variance.

This means that the schools in high SES communities offer to their students a more favorable (more stimulating, more orderly, more work-oriented) learning environment . For these reasons, the academic effectiveness is higher in advantaged schools than in disadvantaged ones, many of which suffer from serious discipline problems, from difficulties in time management and, often, from the staff's tendency to lower their requirements according to the low initial scores of their students.

d. Despite these handicaps, the disadvantaged schools seem to perform slightly better than the advantaged ones in the *Social Skills* and *Study Skills* domains, which originates a rather inextricable series of suppressive effects in the regression analyses. When trying to explore these complex interactions, it seems that the disadvantaged schools 'benefit' more than the others from their very heterogeneous social environment (especially, their large percentage of immigrant students) and from their efforts to offer remedial resources to their students. Both these characteristics have somewhat positive effects on students' affective outcomes in low-SES schools, much more than in high-SES ones.

e. A positive evolution of the *Study Skills* score is found in schools where most of the teachers use *structured instruction* practices. *Structured instruction* is also related to a positive perception of the teacher's competence by students and to an improvement in *Locus of Control* scores.

f. Not surprisingly, *Cooperation* scores are improved in schools where students work in groups.

g. Some 'promising' variables, describing 'good' teaching practices (such as *Student-oriented Teaching* or *Use of School Library* or *Staff's perception of Coherence*) appeared to have no correlation (or even, in a few cases, negative correlations) with most of the effectiveness coefficients. These variables appear to be quite instable : actually, most of the composites derived from the teacher questionnaires suffer from their extremely large between-teachers within school variance. In addition, innovative teaching practices seem to be related with lack of coherence (the scores on *heterogeneity of practices* are significantly higher in schools where the teachers say that they use *student-oriented practices*).

h. *Homogeneous grouping* is negatively related to school *equity*. The differences in cognitive achievement are aggravated after two years in schools where the students are assigned to different classes according to their initial performances.
On the contrary, the achievement gaps seem to be somewhat reduced in heterogeneous settings (schools whose students come from different socio-economic and ethnic backgrounds).

i. Parental interventions seem also to be important, especially for Study Skills and Interest in School. When considering the group of students which a) were 'at risk' when entering grade 6, and b) had nevertheless a positive evolution, one finds that most of them benefitted from a continuing support on the part of their families (parent's positive expectations, parent's help with homework).

j. A common profile is frequently found in the group of schools where the performances are particularly poor in all domains. In those schools, all the indicators point to a severe disruption of the social rules and of the 'moral contract' between the students and the school staff. The students, the teachers and the school director are unanimous to report a poor *Climate*, an extremely poor *Discipline* and an ineffective *Time management*. The teachers' low *Expectations*, low *Requirements*, low *Opportunity to Learn* scores, and the lack of *Remedial Resources* reveal the resignated attitude of the staff. In these schools, the average students'opinions about the teachers are among the most negative in the whole sample of schools.

References.

CREEMERS, B. & SCHEERENS, J., Developments in School Effectiveness Research, *International Journal of Educational Research*, 1989, 13, 7, 685-825.

DETHEUX, M. & BLONDIN, C., *Questionnaire sur les méthodes de travail des élèves*, Liège : Service de Pédagogie expérimentale, 1990.

DEP 10, *Evaluation en cycle d'observation. Deuxième phase: fin de cinquième*. Rapport d'étape. Document de travail n° 409 . DEP, Décembre 1992.

GOOD, Th. & BROPHY, J., School Effects, in M.C. WITTROCK (Ed.), *Handbook of research on teaching*, New-York : MacMillan, 1986.

GRISAY, A., Le fonctionnement des collèges et ses effets sur les élèves de sixième et de cinquième, *Dossiers Education et Formations* n° 32, nov. 1993.

HARTER, S., The Perceived Competence Scale for Children, *Child Development*, Feb. 1982, 53,1, 87-97.

JOHNSON, J. & NOREM-HEBEISEN, A.A., A Measure of cooperative, competitive and individualistic attitudes, *The Journal of Social Psychology*, 1979,109, 253-261.

LAFONTAINE, D., *Pour un parcours scolaire sans ratés. Document 3: La transition primaire-secondaire, Résultats d'enquêtes*, Liège : Service de Pédagogie expérimentale de l'Université, 1988.

MICHELSON, L. & WOOD, R., Development and Psychometric Properties of the Childrens' Assertive Behavior Scale, *Journal of Behavioral Assessment*, 1982, 4,1, 3-13.

PIERREHUMBERT, B *et al.*, Image de soi et perception des compétences propres chez l'enfant, *Revue de Psychologie Appliquée*, 1987, 37,4, 359-377.

PURKEY, S. C., & SMITH, M.S., Effective Schools : A Review, *The Elementary School Journal*, 1983, 83, 4, 427-452.

TORNEY, J. W., *and al., Civic Education In Ten Countries, Stockholm*, Almqvist & Wiksell, 1975.

WILLIAMS, T. & BATTEN, M., *The Quality of School Life*, Australian Council for Educational Research Monograph n° 12, Hawthorn, Australia, 1981.

Table 1. Cognition and socio-affective evolution during the first two years of secondary school

N : 7400 students (for cognitive scores).
2800 students (for the other scores).

Domains	Scores	Nb items	Alpha reliability 1990	1992	Evolution 1990-1992[1]
Academic achievement	Anchor test (French)	30	.82	.86	+ 0.727
	Anchor test (Maths)	18	.79	.83	+ 0.482
Parents'help	Parents' help with homework	6	.74	.78	- 0.374
Study skills and attitudes	Time organisation	16	.75	.82	- 0.067
	Study Skills	18	.81	.83	- 0.011
	Perseverance	12	.67	.69	- 0.263
	Interest in School	14	.78	.84	- 0.479
	Locus of Control	9	.66	.63	- 0.197
Self image	Academic Competence	11	.78	.84	+ 0.160
	Social Competence	5	.67	.75	+ 0.231
	Body Image	8	.77	.83	- 0.064
	Sports Skills	4	.68	.72	+ 0.183
Social Attitudes	Cooperation	14	.80	.85	+ 0.150
	Competition	6	.72	.78	- 0.129
	Assertiveness of Social Skills	14	.72	.76	- 0.184
	Verbal Agressivity	8	.57	.61	+ 0.193
Civic Attitudes	Civics	24	.69	.72	+ 0.176

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[1] The standardized evolution index is the difference between the pretest avec the post-test scores, divided by the standard deviation of the pretest score.

Table 2. Context and process composite variables used as correlates of school effectiveness

Composite variables		Source	Alpha reliability
1.	Urbain/rural school	A	-
2.	Priority area school	A	-
3.	School SES index (composite variable, including Average SES, average number of siblings, percent of students from immigrant families)	A/S	0.85
4.	School and class size	A	0.66
5.	Students' Perception of Parents' support	S	0.75
6.	Positive Expectations (Composite variable, including: Students' perception of parents' expectations, Students' own expectations, Students' perception of pairs' expectations, Teacher perception of average students' motivation)	S/T	0.84
7.	Average students' age in grades 6 and 7	A	0.92
8.	Material resources (Composite variable, including Teachers' and Director's opinions about the quality of premices, school library, and other material resources of the school)	T/D	0.77
9.	Young Staff (Composite variable : Proportion of teachers aged less than 35 years; Proportion of temporary teachers)	A	0.77
10.	Leadership Style	D	
11.	Staff's perception of coherence in Objectives and Teaching Practices (Composite variable, including Teachers' and Director's perception of coherence, integration, participation to decision, etc.)	T/D	0.83
12.	Success/failure expectations	T/D	0.54
13.	Opportunity to Learn (Percent of math items whose content was 'taught to us", according to the students' answers)	S	0.8
14.	Students' perception of 'good teaching practices' (Composite var. : Structured Instruction, 'Most teachers want me to learn', 'Teachers are fair')	S	0.78
15.	Student-centered teaching (Composite var.: individualized practices; group work; Students' participation in class decisions; innovative teaching)	T	0.81

Sources :
- A : Administrative files from the French Ministry of Education.
- S : Student questionnaire.
- T : Teacher questionnaire.
- D : School Director questionnaire.

Composite variables	Source	Alpha reliability
16. Warmth in teacher/student relationships (Composite: discussions on the first name basis; students' rights and responsibilities)	S	0.67
17. High/low requirements	D	0.61
18. Homogeneous grouping	D	0.64
19. Remedial devices (Composite : Study skills courses; students' tutoring; help in school for homework)	D	0.3
20. Use of school library	S	0.5
21. Clarity of school's rules	D	
22. School's climate (Composite : students' Well Being scale; perception of students' climate (by teachers); perception of teachers' climate (by Directors); teachers' and Directors' quality of professional life scale)	S/T/D	0.72
23. Time to learn and Discipline (Composite: students' perception of time on task; rate of absenteeism; students', teachers' and Driectors perception of Discipline)	S/T/D:	0.87
24. Heterogeneity of the population (SES, ethnicity, age, ...)	S	0.77
25. Heterogeneity of the teaching practices (as perceived by the students)	S	0.65
26. Heterogeneity of the daily environment (as perceived by the students)	S	0.47

Sources :
- A : Administrative files from the French Ministry of Education.
- S : Student questionnaire.
- T : Teacher questionnaire.
- D : School Director questionnaire.

Table 3. Between-schools variance of the cognitive and socio-affective scores

Domains	Scores	Between-School variance (as a percentage of the total post-test variance)	Residual Between-School variance (after controlling for the pretest score)
Academic achievement	French	19.9 %	3.8 %
	Maths	20.2 %	4.1 %
Study skills and attitudes	Time organisation	5.4 %	3.2 %
	Study Skills	3.0 %	1.4 %
	Perseverance	1.0 %	0.3 %
	Interest in School	1.1 %	0.8 %
	Locus of Control	1.0 %	1.0 %
Self image	Academic Competence	0.9 %	0.9 %
	Social Competence	0.5 %	0.5 %
	Body Image	2.5 %	1.7 %
	Sports Skills	0.5 %	0.2 %
Social Attitudes	Cooperation	2.6 %	1.7 %
	Competition	1.2 %	1.2 %
	Assertiveness and Social Skills	4.2 %	1.4 %
	Verbal Agressivity	1.8 %	1.5 %
Civic Attitudes	Civics	8.8 %	2.3 %

Table 4. Some school characteristics associated with school effectiveness and school equity

(Standardized regression coefficients)

Predictors	Factor 1 Effectiveness (French & Math)	Factor 2 Equity (French & Math)	Factor 3 Effectiveness (Social skills & Civics)	Factor 4 Effectivess (Study skills & attitudes)
School Intake				
School SES	.380*		-2.11	
Heterogeneity of social intake	.358*	.484*		
Heterogeneity of pretest scores (F & M)	.115			.308
Average age of the students	-.331	-.356		
Interaction: Age * Social Heterogeneity		.208		
School Characteristics & Processes				
School & Class size	-.234	.156		
Material Resources	.129	.228*	-.264*	
Opportunity to Learn (Math)	.232*		.215*	
Student-oriented Teaching	-.169			
Low requirements	-.121		.198	
Homogeneous Grouping	-.225*	-.437		
Use of School Library	-.162	-.247*	-.288	.287*
Clarity of School Rules		.188		
Remedial Devices			.121	.163*
Time management and Discipline			.571*	
Positive Expectations				.180
School Climate				.292*
Interactions Intake * Processes				
School SES * Parent's Help	.157*			
School SES * Remedial Devices	-.185		-.277	
School SES * Low requirements	-.200			
School SES * School & Class Size	.121			
Social Heter. * Student-oriented Teach.		-.121		
Social heter. * Homogeneous Grouping		.418*		
Students'age * Homogeneous Grouping		-.262		
Percent Immigrants * Young Staff				-.089
Percent Immigrants * School & Class Size				-.160
Percent Immigrants * Parents' Help				.114
Explained Between-School Variance	**45 %**	**34 %**	**28 %**	**44 %**

* : S. at 0.05